RGB Theatre Spot

ORDERCODE 50463

SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!
You have bought a great, innovative product from Showtec.
The Showtec RGB Theatre Spot brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!

Showtec RGB Theatre Spot™ Product Guide

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WARNING

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never run the device without lamp!
- Never ignite the lamp if the objective-lens or any housing-cover is open, as discharge lamps may expose and emit a high ultraviolet radiation, which may cause burns.
- Do not open the device and do not modify the device.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not switch the device on and off in short intervals, as this would reduce the lamp's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes very hot).
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.

- Avoid flames and do not put close to flammable liquids or gases.
- Always replace the lamp, when it is damaged or deformed due to the heat.
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used, before cleaning or when replacing lamp! Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the device and the power-cord from time to time.
- If the lens is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. The device must be installed out of the reach of children. Never leave the unit running unattended.
- For replacement use lamps and fuses of same type and rating only.
- Allow time to cool down, before replacing lamp.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION ! EYEDAMAGES !.
Avoid looking directly into the light source.
(meant especially for epileptics) !

OPERATING DETERMINATIONS

This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

The minimum distance between light-output and the illuminated surface must be more than 1.3 meter.

The maximum ambient temperature t_a must never be exceeded.

If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
Any other operation may lead to dangers like short-circuit, burns, electric shock, lamp explosion, crash etc.

You endanger your own safety and the safety of others!

Description of the device

Features

The Showtec RGB Theatre Spot is a Theatrelight from Showtec with RGB-Colormixing.
• With use of DMX-Controller up to 16.000.000 Colors
• 3 DMX-Channels, for every color one channel: R/G/B
• MASTER- and DMX workmode

NOTE: Knowledge of MIDI and DMX is required to fully utilize this unit

Overview

Fig. 1

1) Mounting bracket
2) 3 x A1/244 500W Lamp (ordercode 80701P / 80701G)

Backside

Fig. 2

3) IEC Powerconnector and Fuse
4) Microphone
5) Audio Sensitivity
6) LCD Display
7) Mode
8) Up
9) Down
10) Ventilator
11) DMX Out
12) Audio In
13) DMX In

Installation

Installing the Lamp

The Showtec RGB Theatre Spot uses 3x A1/244 500W Lamps (ordercode 80701P / 80701G), as manufactured by all popular manufacturers. Use only the appropriate lamp for your unit.
Note that, product versions that use other lamps, may be offered in the future. Check your product specification label for information.
Always disconnect from electric mains power supply before changing lamps.
The lamp has to be replaced when it is damaged or deformed due to the heat.
Do not install lamps with a higher wattage! Lamps with a higher wattage generate temperatures the device was not designed for.
Damages caused by non-observance are not subject to warranty.

Procedure :

1. Loosen the 3 screws (**A**) on the housing.
2. Gently remove the lamp cover (**B**). Do not touch the lamp bulb glass. Oil on hands shortens the lamp life. (If you touch the bulb glass, wipe off the glass with a clean, lint-free towel and rubbing alcohol.)
3. Insert the lamp pins into the small holes in the lamp socket. (**C**). You have to install 3 Lamps.
4. Put the lamp cover back and fasten the screws snugly.

A **B** **C**

Fig. 3

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.

DMX work mode

1. Plug the powercable into the wall.
2. Connect a DMX controller to the Theatre Spot, using a 3-pin XLR cable. When the system checks the DMX signal, the LED flashes and the DISPLAY shows the DMX address – otherwise the display stays blank. RGB-mode: RGB referral point light. There are 3 channels: 1st channel RED, 2nd channel Green, 3rd channel Blue.
3. Online test: Connect every unit with a 3-pin XLR cable. Every unit is set to the same DMX work mode and the received DMX addresses are the same (001-512). When a DMX signal is received, the devices function synchronously.

MASTER-work mode

1. AUTO-Mode: Auto run program and built-in colors
(40 Colors, see Master-Color Table).
Parameter: d:XXX (000-100%): Color intensity, adjust output control.
F:XXX (000-100): Fade-Time Parameter (0-60S).
S:XXX (001-100): Run Speed Parameter (50mS/Step-60S/Step).

2. AUDIO-Mode: Music-controlled programs and built-in colors
(40 Colors, see Master-Color Table)
Parameter: d:XXX (000-100%): Color intensity, adjust output control.
F:XXX (000-100): Fade-Time Parameter (0-60S).
Sound-controlled sensitivity can be adjusted. The device has a built-in mic and a Audio Input.

3. Online-Test: Connect every unit with a 3-pin XLR cable.
One is set to Master-Work, one is set to RGB-DMX-Mode. The received address is A:001.
Online test: Connect every unit with a 3-pin XLR cable. Every unit is set to the same DMX work mode and the received DMX addresses are the same (001-512). When a DMX signal is received, the devices function synchronously.

Button Function

MODE: Select work mode. Press and hold the MODE-button for more than a second, the unit will translate the work mode. When you press and hold the MODE-button longer, the unit will translate a work mode of 1.5S (RGB, C&B, AUTO, AUDIO). The referral point on the display lights up.

UP: Press once, the Parameter adds one step. When you hold down the UP-button, the Parameter value will increase fast.

DOWN: Press once, the Parameter decreases one step. When you hold down the DOWN-button, the Parameter value will decrease fast.

Function Table

Work Mode	UP	DOWN	MODE		Parameter
			Within 1 Sec.	More than 1 Sec.	
RGB	+1	-1	None	Mode Translate	A:XXX
C & B	+1	-1	None	Mode Translate	A:XXX
AUTO	+1	-1	Parameter select	Mode Translate	d:XXX F:XXX S:XXX
AUDIO	+1	-1	Parameter select	Mode Translate	d:XXX F:XXX

C & B-Modus = (Color & Brightness)

DMX Channel Table

The color and the intensity can be adjusted according to the next table:

DMX Value (Decimal)	Red (Intensity 0-100%)	Green (Intensity 0-100%)	Blue (Intensity 0-100%)	Color
0	0	0	0	Black
1-2	100	0	0	Red
3-33	100	(N-2)x3	0	*
34	100	100	0	Green & Red
35-65	100-(N-34)x3	100	0	*
66-69	0	100	0	Green
70-100	0	100	(N-69)x3	*
101	0	100	100	Blue & Green
102-132	0	100-(N101)x3	100	*
133-136	0	0	100	Blue
137-167	(N-136)x3	0	100	*
168	100	0	100	Blue & Red
169-199	100	0	100-(N-168)x3	*
200-206	100	(N-199)x6	(N-199)x12	*
207	100	50	100	*
208-210	100-(N-207)x12	50+(N-207)x12	100	*
211	50	100	100	*
212-215	50-(N-211)x6	100	100-(N-211)x12	*
216-218	25-(N-215)x6	100	50-(N-215)x6	*
219-222	(N-217)x6	100	25-(N-219)x6	*
223-225	38+(N-223)x6	100	(N-221)x6	*
226-228	50+(N-225)x12	100	25+(N-225)x6	*
229	100	100	50	*
230-232	100	100-(N-229)x12	50+(N-229)x12	*
233	100	50	100	*
234-236	100-(N-233)x12	50-(N-233)x6	100	*
237	50	25	100	*
238-240	50-(N-237)x6	25-(N-237)x6	100	*
241-244	25-(N-241)x6	(N-239)x6	100	*
245-247	(N-243)x6	(N-239)x6	100	*
248-251	25+(N-247)x6	50+(N-247)x12	100	*
252-254	50+(N-251)x12	100	100	*
255	100	100	100	White

Note:

1. " N" denotes DMX value (0-255).
For example: If the DMX value is 239, Red intensity is 50-(239-237)x6=38%,
Green intensity is 25-(239-237)x6=13%, Blue intensity is100%.

2. "*" denotes unnameable color.

MASTER mode color table : (when d;XXX=d:XXX)

NO.	Red(%)	Green(%)	Blue(%)		NO.	Red(%)	Green(%)	Blue(%)
1	0	100	0		21	100	0	20
2	0	0	100		22	0	75	100
3	100	0	0		23	0	40	100
4	100	0	100		24	0	15	100
5	100	100	0		25	50	100	0
6	0	100	100		26	25	0	100
7	75	100	0		27	0	100	25
8	40	100	0	Every color runs circulary and orderly	28	100	0	50
9	15	100	0		29	0	25	100
10	100	0	75		30	100	0	50
11	100	0	40		31	25	100	0
12	100	0	15		32	50	0	100
13	75	0	100		33	100	0	25
14	40	0	100		34	0	100	50
15	15	0	100		35	100	0	25
16	0	100	75		36	0	50	100
17	0	100	40		37	100	50	100
18	0	100	15		38	50	100	100
19	100	0	80		39	100	100	50
20	100	0	50		40	100	100	100

Example: when the 13th Step is running, d:xxx = d:085: Red lights up: 75%*85% =64%,
Green lights up: 0%*85%=0%
Blue lights up: 100%*85%=85%.

Maintenance

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every four years in the course of an acceptance test.
The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:

1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

The Showtec RGB Theatre Spot requires almost no maintenance. However, you should keep the unit clean. Otherwise, the light-output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.
The front glass will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly.
Please clean internal components once a year with a light brush and vacuum cleaner.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Changing the Lamp

1. Disconnect mains power supply, and allow 15 minutes to cool down. Loosen the 3 screws on the housing. Gently remove the lamp cover.
2. Follow directions for installing a new lamp, page 6.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from electric power source.
2. Insert a flat-head screwdriver into a slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

This troubleshooting guide is meant to help solve simple problems.
If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If the device does not operate properly, unplug the device.
2. Check the fuse, power from the wall, all cables etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If you are unable to determine the cause of the problem, do not open the device, as this may damage the unit and the warranty will become void.
5. Return the device to your Showtec dealer.

No Light

This troubleshooting guide is meant to help solve simple problems. If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
If the light effect does not operate properly, refer servicing to a technician.
Response: Suspect three potential problem areas: the power supply, the lamp, the fuse.

1. Power supply. Check that the unit is plugged into an appropriate power supply.
2. The lamp. Replace the old lamp with a new one with the same specifications. See page 10 for replacing the lamp.
3. The fuse. Replace the fuse. See page 10 for replacing the fuse.

No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction.

1. Check the DMX setting. Make sure that DMX addresses are correct.
2. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
3. Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products ? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

Product Specification

Model: Showtec RGB Theatre Spot
Voltage: AC 230V-50Hz (CE)
Cooling: Ventilator
Fuse: 10A / 250V 5 x 20mm
Dimensions: 320 x 285 x 245 mm (LxWxH)
Weight: 6,5 kg

Operation and Programming
DMX-control via standard DMX-controller
Audio trigger: built-in microphone
Signal pin OUT : pin 1 earth, pin 2 (-), pin 3 (+)
DMX Channels: 3
Signal input 3-pin XLR male
Signal output 3-pin XLR female

Lamp
Allowed lamp models*:
Philips A1/244 500W ordercode 80701P)
GE A1/244 500W ordercode 80701G

*: Versions for other lamps may be produced. Please check the specification label on your product.

Design and product specifications are subject to change without prior notice.

CE

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